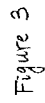


Figure 2
(background art)



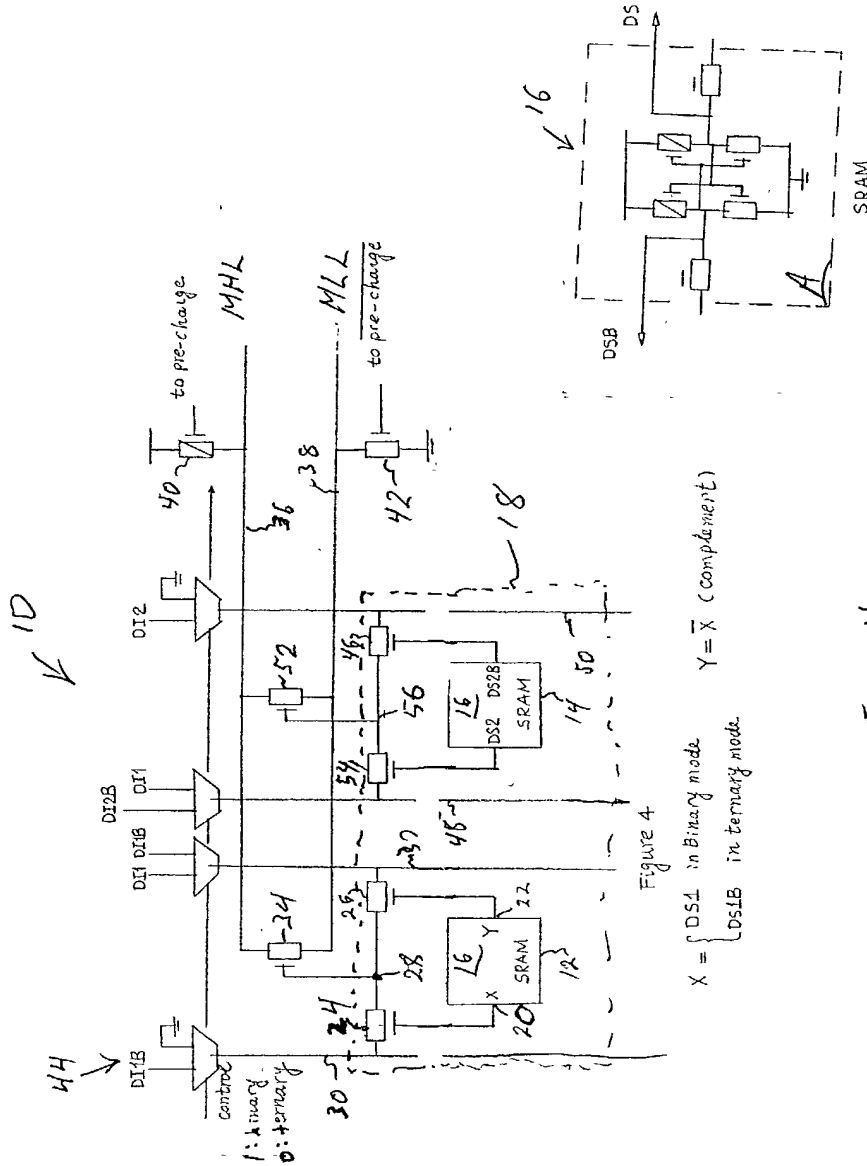


Figure 4

$X = \begin{cases} \text{DS1} & \text{in Binary mode} \\ \text{DS1B} & \text{in ternary mode} \end{cases}$ $Y = \bar{X}$ (complement)

Fig. 4

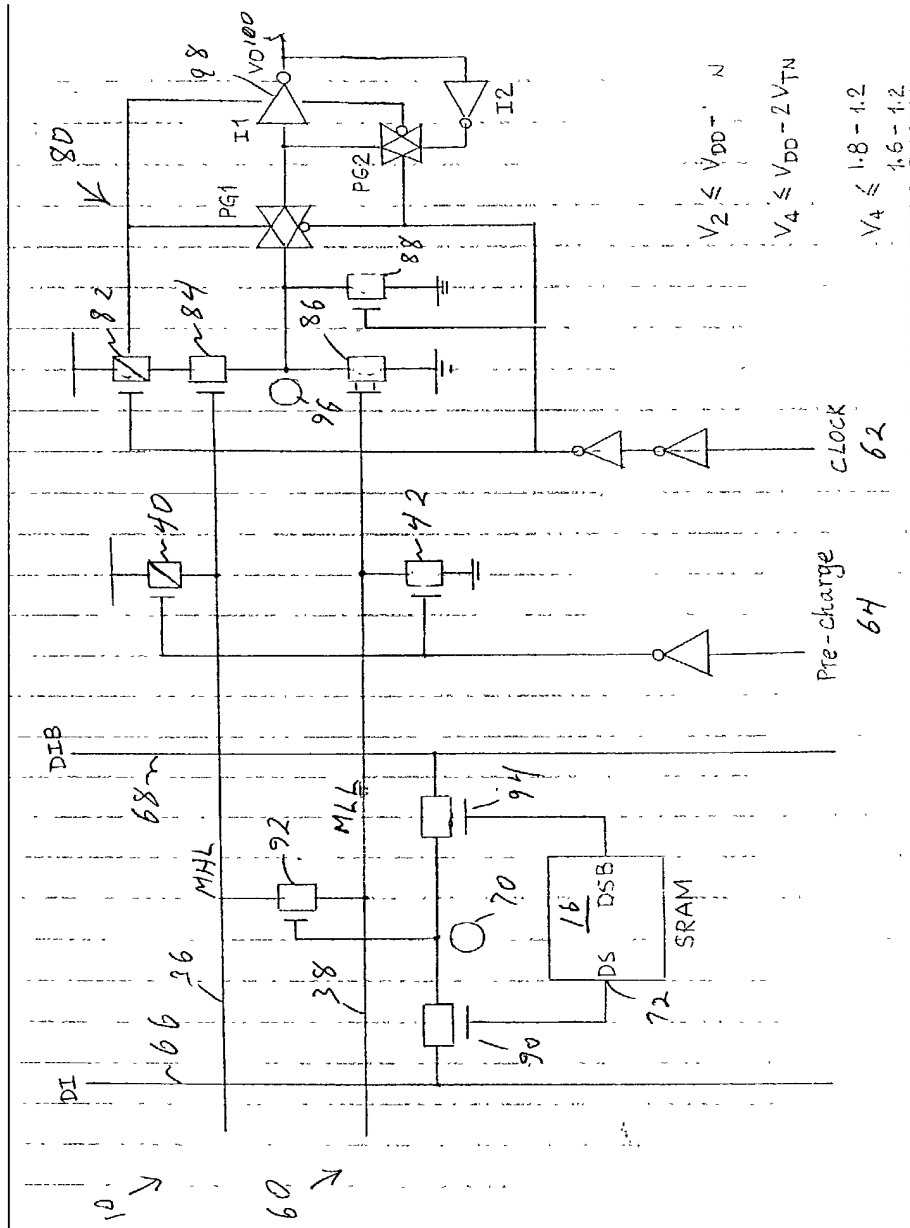


Figure 5

3-phase comparison cycle
Phase1: Data input phase
Phase2: Comparison phase
Phase3: Sampling phase

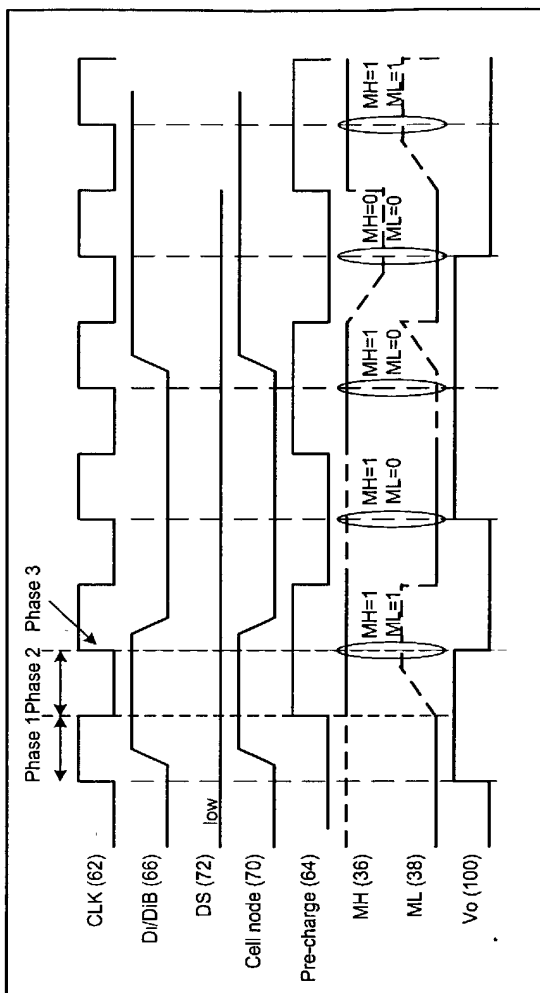
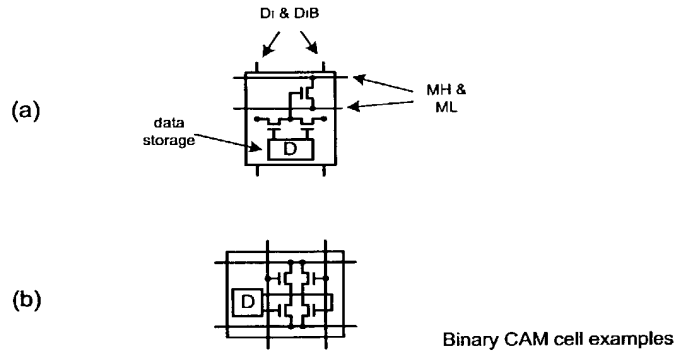


FIG. 6



Ternary CAM cell examples

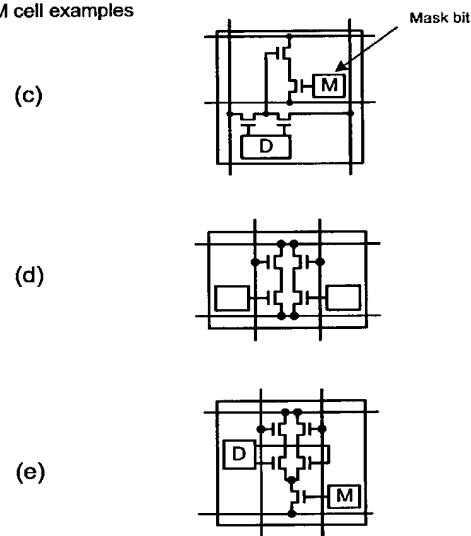


FIG. 8